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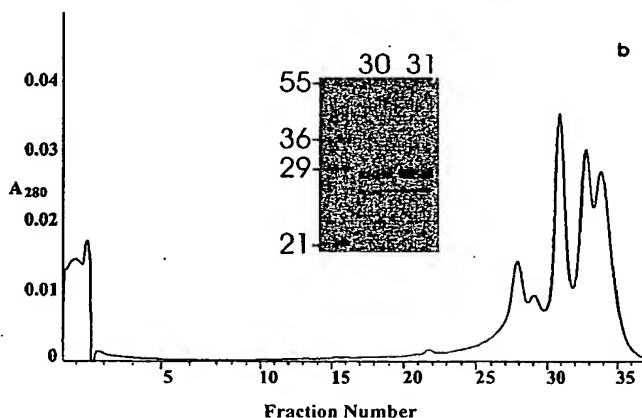
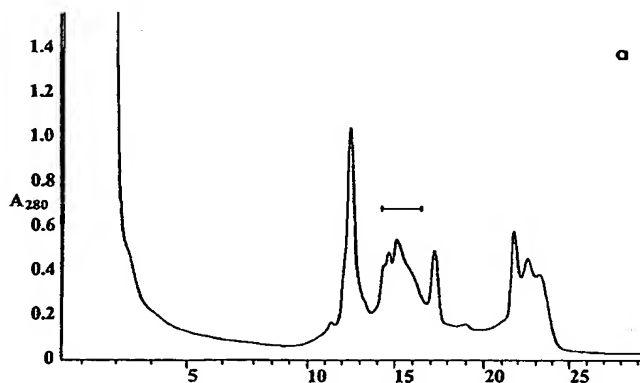
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(54) Title: **CAMPYLOBACTER GLYCANS AND GLYCOPEPTIDES**



(57) Abstract: Multiple strains and species of Campylobacter were found to share a common glycan moiety which is present in a plurality of surface-exposed glycoproteins. This glycan has the formula: GalNAc- α 1,4-GalNAc- α 1,4-[Glc- β 1,3]GalNAc- α 1,4-GalNAc- α 1,4-GalNAc- α 1,3-Bac, wherein Bac is 2,4-diacetamido-2,4,6-trideoxy-D-glucopyranose. This glycan and immunologically active fragments of it have use as vaccines against campylobacter infection in humans and animals. As well, antibodies which specifically bind these compounds may be provided. Such antibodies and vaccines may be used to prevent or neutralize campylobacter infections in livestock thereby preventing this pathogen from entering the human food chain. The glycan may be linked to one or more amino acids to form a glycopeptide. As well, a method for determining the glycan structure of an intact glycoprotein consists of subjecting a sample to high resolution magic angle spinning nuclear magnetic resonance (HR-MAS-NMR) spectroscopy.